DOCUMENT RESUME

ED 084 377 95 CE 000 528

TITLE Development of a Pilot Career Cluster Curriculum for all Students in a College Preparatory Oriented High School. Final Report. Part I: Curriculum Development.

INSTITUTION Montgomery County Public Schools, Rockville, Md.
SPONS AGENCY Bureau of Occupational and Adult Education (DHEW/OE), Washington, D.C.
PUB DATE 31 Jul 73
CONTRACT OEC-0-72-4844
NOTE 74p.

EDRS PRICE MF-$0.65 HC-$3.29
DESCRIPTORS *Career Education; Community Resources; *Curriculum Development; Curriculum Evaluation; Curriculum Guides; Curriculum Planning; *High School Curriculum; Internship Programs; Marine Biology; Occupational Clusters; *Participant Satisfaction; *Relevance (Education); School Community Cooperation; Units of Study (Subject Fields)

ABSTRACT

In developing a program to assist the individual student to plan a goal-oriented program and increase his opportunities both to select courses moving him toward his personal goals and to use the community resources as supplemental educational experiences, the Winston Churchill High School designed a Career Cluster Curriculum Project, the first phase of which ran from July 1, 1972, to June 30, 1973. During that pilot year, it was decided to assess the present curriculum, to strengthen the career counseling component of the school program, to develop two illustrative mini-courses, and to add in-school programs and/or develop out-of-school placements enabling students to explore career interests in functional settings. The student interns, a sampling of their parents and employers and career advisors were asked for their attitudes toward the program at its conclusion. It was concluded that the responses were sufficiently encouraging to continue with the second phase of the program: expansion of mini-courses offered and internship placements. The third phase, planned for 1974-75, draws to completion various aspects of the program. (Among the seven appendixes, two are course outlines for the illustrative mini-courses.) (AG)

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DEVELOPMENT OF A PILOT CAREER CLUSTER CURRICULUM FOR ALL STUDENTS IN A COLLEGE PREPARATORY ORIENTED HIGH SCHOOL

Final Report for a

U.S. Office of Education Grant

OEG-0-72-4844

Submitted by

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CE 000 528

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July 31, 1973

The thrust of the Winston Churchill High School Career Cluster Curriculum Project was to develop an instructional program which would help students to intelligently plan individual educational programs which would be based upon a better understanding of his/her interests, abilities and needs and a more complete awareness of the career world. Furthermore, we hoped to make more complete utilization of the human and material resources of our community in order to assist students to obtain a better understanding of careers and the relationship between school and community. Finally we hoped to use the community as an extension of the school in such a way that students might obtain internship placements in career areas of personal interest.

Classroom teachers were released part-time from teaching assignments in English, social studies and science to serve as career advisors. The career advisor's role was to serve as a coordinator of the program and to facilitate the development of strategies to meet the above objectives. Other members of the staff were involved in the review of the curriculum and in planning methods for expanding the program. Student and parent involvement was actively encouraged throughout the project to maintain an interface with the ultimate consumer of the educational project. The material that follows will highlight the accomplishments of the year and will indicate recommendations for future direction.

CHAPTER I

DEVELOPMENT OF A PILOT CAREER CLUSTER CURRICULUM FOR ALL STUDENTS IN A COLLEGE PREPARATORY ORIENTED HIGH SCHOOL

Statement of Problem

American secondary education is today facing a confidence crisis of mounting proportions brought on by a combination of factors. Student alienation is becoming increasingly widespread as is evident from reports of student disturbances and/or student apathy and disengagement in many schools around the country. Taxpayers are becoming more and more strident in their calls for accountability and for achievement of the stated goals of education. The educational enterprise is caught up in a maze of conflicting demands which superficially, at least, appear to be contradictory and thus irreconcilable. The solution to these and the many other problems facing modern secondary education defy simplistic solutions; however, it is believed that a refocusing of our curriculum upon a career development direction may offer considerable hope for assisting our students to better identify the learning process in secondary schools as a relevant life experience and, at the same time, satisfy to a large extent the reasonable demands of society for a marketable product.

The staff of Winston Churchill High School has, for the past two years, spent considerable time assessing our curriculum and modifying it to make it more responsive to the changing needs of our students and society. These efforts, which have included efforts to obtain increased input from students and parents, have resulted in numerous additions to

our curriculum and in the modifying of several traditional thirty-six week offerings into mini-courses of nine weeks each. The science department and the English department have piloted these efforts during the past year and on the whole have been successful in developing a practical model applicable to other fields.

The very success of these ventures, however, has sensitized our staff to the new danger of developing a curriculum which is disarticulate and in which departmental staffs may be encouraged to aggressively compete for that increasingly scarce commodity, that is, the motivated student. We believed we needed a model for curriculum development which would assist us to offer flexible but cohesive programs. We already possessed many programs which were prototypes for successful, relevant learning activities, but we were concerned that our students and public were not sufficiently aware of these opportunities to select wisely among such a smorgasbord of offerings. As a result, we still heard frequent concerns expressed by students and parents indicating that many students felt a rootlessness or lack of direction for their personal program planning. It was believed that the two most common bases for student course selection was to satisfy graduation requirements or in some general way to prepare to meet college entrance requirements. There seemed to be little or no effort to take those courses which would be especially useful for career exploration or, in fact, to in any way even consider that the time spent in high school might be useful for application in the real world of work and living. Simultaneously, with the above developments, we were also alerted to the changing state requirements for graduation and to the problem in the larger society of a changing employment market in which many college graduates no longer

found their college diploma to be a passport for a successful entry into career fields for which they had expended great amounts of time, energy and money. The tighter economy and the increased cost of a college education also placed increased pressure on many of our students, approximately ninety per cent of whom enrolled in college in past years, to select partial work-study programs, and thus bypass many course offerings which, in the long run, would be highly useful to many of these students. We were also concerned that many of these students, with more assistance, counseling and supervision from the school, might be able to combine the opportunities for earning money with "hands-on" career exploration. Many months of discussion and study of the above factors thus resulted in our development of a career cluster curriculum model which we proposed to the faculty for further consideration in January, 1972.

The intent of the model was to stimulate a thorough discussion and investigation by individual departments and the faculty as a whole of its potential for evolving a functional, flexible curriculum which would provide our students with continuous opportunities for personal counseling in the areas of careers and which would also provide the student with the opportunity to better understand the relevancy of course offerings to various careers and thus improve his efforts to wisely select learning opportunities geared to his own interests, abilities and needs. We also desired that the model would permit us to develop new offerings in areas where we believed we possessed the human and physical resources to meet felt needs and/or modify or eliminate those offerings which are redundant or repetitious of another department's efforts. As part of our effort, we also desired to develop these instructional packages as nine-week or at the most eighteen-week units, each complete with its own set of

measurable instructional objectives, learning-teaching strategies, and evaluation models. We believed that such a direction would facilitate greater opportunities for individual students to structure their curriculum in such a way so as to be more meaningful to each individual. In addition, we also hoped to make fuller use of the almost unlimited community resources which are available in close proximity to our school. We posited that by transferring major responsibility for the career cluster curriculum to the individual departments, including departmental responsibility for providing career counseling of students and selection and placement of students in out-of-school learning environments, we could better utilize the expertise of the teaching staff and further the development of the counseling relationship between students and teachers. We further believed that such an effort would enable us to better articulate our efforts while, at the same time, providing the maximum opportunities for individualizing the program for each student.

Departmental investigation of the idea had been proceeding since January, 1972. During our biweekly meetings of administrators, counselors and departmental resource teachers, we shared ideas and concerns on this topic and developed plans for a three-week workshop operating from July 17 through August 7, during which we planned to develop a coordinated career cluster curriculum model for the entire school, specify those clusters where we believed our specific combination of student, staff, community and physical resources could be best used, begin to develop a community resource bank for possible student placements and, if time permitted, further the development of additional mini-courses for inclusion in our curriculum.

One of the most exciting aspects of our program was the grass-roots

approach which developed. The fact that the ideas for the model were being developed at the local level by necessity promoted a higher level of staff commitment and enthusiasm than we would find in a situation where the planning group was given a finished product and asked to modify or, in some other way, adapt it to our local needs. However, we had approached the time where we had an increasing need to further refine our thinking, coordinate the various aspects of the plan and begin to develop strategies for implementation and dissemination. Such efforts required extensive staff time and expertise over and above the normal requirements of a teaching role. Given the continuation of personal motivation being evidenced it was likely that, left to our own efforts, we probably could complete the task within five years. However, we believed that the provision of financial assistance to obtain consultant resources, to release teachers part-time to think, explore and write, an to obtain para-professional assistance to release the teachers from the clerical and administrative responsibilities of the program development would greatly expedite the effort and depending upon the degree of assistance save from two to three years of development time. We were therefore grateful for the opportunity to work with Dr. Elizabeth Simpson of the U.S. Office of Education in developing this project designed to accomplish our objectives.

Developmental Plan

The proposed plan was to proceed with the career cluster curriculum on a three-stage cycle. The first of these cycles runs from July 1, 1972, through June 30, 1973, and is adequately described in the preceding material.

The second phase objectives would be finalized only after a careful

evaluation of the first phase activities, but initially the projection would be to expand the development of the enabling mini-courses and to further expand the opportunities for out-of-school community intern placements for interested students. It also would be hoped to completely implement the facilitating curricular and community intern opportunities in at least one of the clusters, namely, Communications and Media.

The thrust for the third phase running from July 1, 1974, to June 30, 1975, would be to complete the development of the mini-courses and the community intern experiences program in those additional clusters identified by the project staff as compatible with the needs and resources of our school and to complete the implementation of differentiated staffing required to release staff members for the career counseling assignments and other related curriculum development and instructional development projects in all participating departments.

Goals

1. Develop an instructional system for a career cluster curriculum for all students in a college preparatory oriented high school

2. Develop career cluster curriculum packages of nine-weeks duration in selected areas of the Communications and Media cluster and the cluster of Marine Science occupations. These packages would include a comprehensive statement of the instructional objectives, content in the form of basic concepts and generalizations, learning-teaching strategies and evaluation procedures designed to specifically measure student achievement of the stated objectives

3. Develop the instrumentation to begin testing the efficacy of the model and the instructional packages

4. Prepare for dissemination the following sub-programs:

   a. General career cluster curriculum model including utilization of schematics to illustrate selection of mini-courses and intern experiences to progress toward various career goals

   b. Several illustrative mini-courses in the career clusters of Communications and Media and Marine Science

5. Develop plans and procedures to identify available community resources, to obtain cooperation of appropriate personnel, to facilitate placement and supervision of qualified students and to organize the information into a system which permits simple and quick retrieval

6. Identify and train existing staff members to carry out the responsibilities of the career counseling phase including both preparation and dissemination of career information to the students and the identification, placement and supervision of student interns in community resources

Concommitant Goals

1. Provide counseling and curriculum options to minimize the "rootlessness" or lack of identity felt by large numbers of students

2. Develop mini-courses which are relevant to a variety of real world careers

3. Assist students to make more careful plans for optimal use of released time from formal school programs

4. Provide students with more flexibility in exploring a variety of career areas before the students expend large amounts of time, energy and/or money in the fulfillment of degree or apprenticeship requirements

5. Permit the student to enjoy more immediate achievement motivation from successful participation in the actual world of work

6. Modify the perceptions held by many students and adults as to the dichotomy between preparation for college and preparation for a career

7. Develop stronger student pride in quality workmanship by permitting the student to make actual contributions to important real life activities

8. Allay the concerns of many taxpayers as to the quality of the educational product by constructing a curriculum which incorporates functional learning packages consisting of measurable instructional objectives and specific evaluation procedures

CHAPTER II

INSTRUCTIONAL SYSTEM

The instructional system developed to achieve the objective of this project focused on four goals. First, it was decided to assess the present curriculum in order to ascertain the relationship of the courses in the program of study to the career clusters developed by the U.S. Office of Education. Second, it was decided that an effort would be made to strengthen the career counseling component of the school program in order to provide individual students with more assistance in developing personal programs of study which were goal oriented. Third, an effort was made to begin development of illustrative mini-courses in the area of Communications and Media and the area of Marine Science. Finally, it was planned to begin efforts to add in-school programs and/or to develop out-of-school placements (community internships) which would enable students to explore their career interests in functional settings.

The curriculum assessment phase of the project was assumed as one of the tasks of the staff, student, parent workshops conducted during the three weeks of July 17 through August 7, 1972. Three workshop groups analyzed the present curriculum and attempted to develop a general outline of a career cluster curriculum model which would include flow charts or schematics of alternative curriculum routes. The groups found it difficult to complete this charge, however, since they discovered that the U.S. Office of Education career clusters were frequently overlapping in

many areas. Furthermore, the workshop groups decided that such an effort would be limited in its impact to those students who had already developed a fairly clear idea of their future career goals. The schematics to follow are offered only as a beginning of this effort and readers are cautioned regarding the limitation of the utility of these products. Much work remains to be done with this material including an opportunity to have business and professional people review the recommended routes and provide redirections or additions. It is suggested that the development of career oriented curriculum pathways be expanded to include sets of schematics for those students who may be thinking of future goals in terms of interest in specific subject areas rather than in terms of ultimate careers. Furthermore, it was decided that this type of approach could also prove useful by developing the pathways through the direction of student interests, abilities or temperaments. The schematics that follow Chapter II are illustrative of the Career Exploration Model (Schematic 1) and the Communications and Media Mini-Course Model (Schematic 2).

The second goal in this area was to strengthen the career counseling thrust of the program. Several assumptions were made initially to give direction to this effort. First, it was decided that the school counselors were too over-burdened and too limited in their awareness of the career world to undertake an extensive new effort in the direction of career counseling. Next, it was posited that classroom teachers provided with released time from classroom instruction would with proper training effectively be able to assist individual students to increase their awareness of careers and to develop personal long-range educational plans which would result in the development of individualized educational programs

which were goal oriented. Finally, it was felt that classroom teachers acting as career advisors would also provide a synergistic effect on other department members and thus facilitate the development and expansion of the program.

An English teacher, social studies teacher and a science teacher were selected as career advisors and provided with school time to work with the program. Teachers were selected to serve as career advisors because of their demonstrated ability to work well with students and their individual efforts in past years to assist students to think rationally about the relationship of the academic world and the world beyond the school walls. Furthermore, these teachers had also been among leaders on the staff in using community resources, and it was felt that they, therefore, had many valuable contacts and had developed the necessary skills for bringing community resources into the program. The final selection criteria was the interest expressed by these staff members in the career education concept and their proven ability to develop practical applications of conceptual projections. Although all of the above criteria were extremely subjective, in retrospect, fate was very kind in validating our judgments since all of our advisors were judged to be very effective in fulfilling their responsibilities.

An office area was designated and staffed on a daily basis by a project aide who assumed responsibility of a clerical and supervisory nature. All of the career education literature and materials present in the school were centralized in the career office to make it easier for students and advisors to have access to the material on a need basis. Efforts were also made to identify other resources and whenever financially

possible these materials were added to the office's collection. During the course of the year hundreds of students came to the office to use the materials and to talk with the career advisors. The office also provided a central location for students to meet with the advisors and discuss educational planning and career internships. Although the project staff's main purpose during the initial year was to be a planning effort, student interest and enthusiasm required that a vast expenditure of effort and time be directed to working with individual students. These efforts included assisting students to use the various diagnostic and descriptive materials available in the office; helping students to identify their own interests, strengths, and weaknesses; aiding students to explore various alternatives for program planning; coordinating and facilitating the development of a career seminar program and identifying, obtaining and supervising community internships for over 200 students.

The department chairmen of science, mathematics, and foreign languages, although not specifically identified as career advisors, also participated in various aspects of the program. These three individuals carefully analyzed the possible involvement of their departments in the program and developed plans for further implementation. They also worked with individual students although on a more limited basis than the designated career advisors.

Three other members of the staff should be cited for their involvement in certain aspects of the program. The home economics teacher supervised twenty child development students in feeder elementary schools. The instrumental music teacher initiated an apprenticeship program for his students to provide them with the opportunity to work several periods each week in

the feeder junior high schools and in other feeder elementary schools. Finally, we continued to work through a distributive education teacher to provide students the opportunity for paid employment in a variety of business organizations.

The mini-course program at Winston Churchill High School was developed as a result of assessing the curriculum and modifying it to make it more responsive to the changing needs of our students and society. Several traditional thirty-six week offerings in the fields of science and English have been offered as nine week mini-courses. For the past two years this student-centered approach in these areas has been used to improve the interaction between students, teachers and curriculum. Within the framework of specific required selections, students have various options open to them, allowing them a great deal of flexibility as well as a wide variety in choosing individual options or mini-courses. For example, students are required to complete four nine-weeks units in biology and among these units they must include one unit on the cell one on zoology and one on botany. The sequence of these units is an individual student option as is the free choice of the fourth unit from an offering of over fifteen possibilities.

Students are further permitted to meet the botany and zoology requirements by selecting from any of several options in each area. As an illustration, the student may meet his botany requirement by selecting any one of the following units; lower plants, higher plants or plant surgery. In order to insure that each student taking biology will be taught the major principles, generalizations and concepts of biology, regardless of his individual options, the staff has carefully developed the learning packages

to insure that all of the options in any one of the required areas; i.e., cell, zoology and botany, include an emphasis on a specified package of objectives. We believe that the strategy described above is a reasonable congruence of curriculum flexibility and accountability.

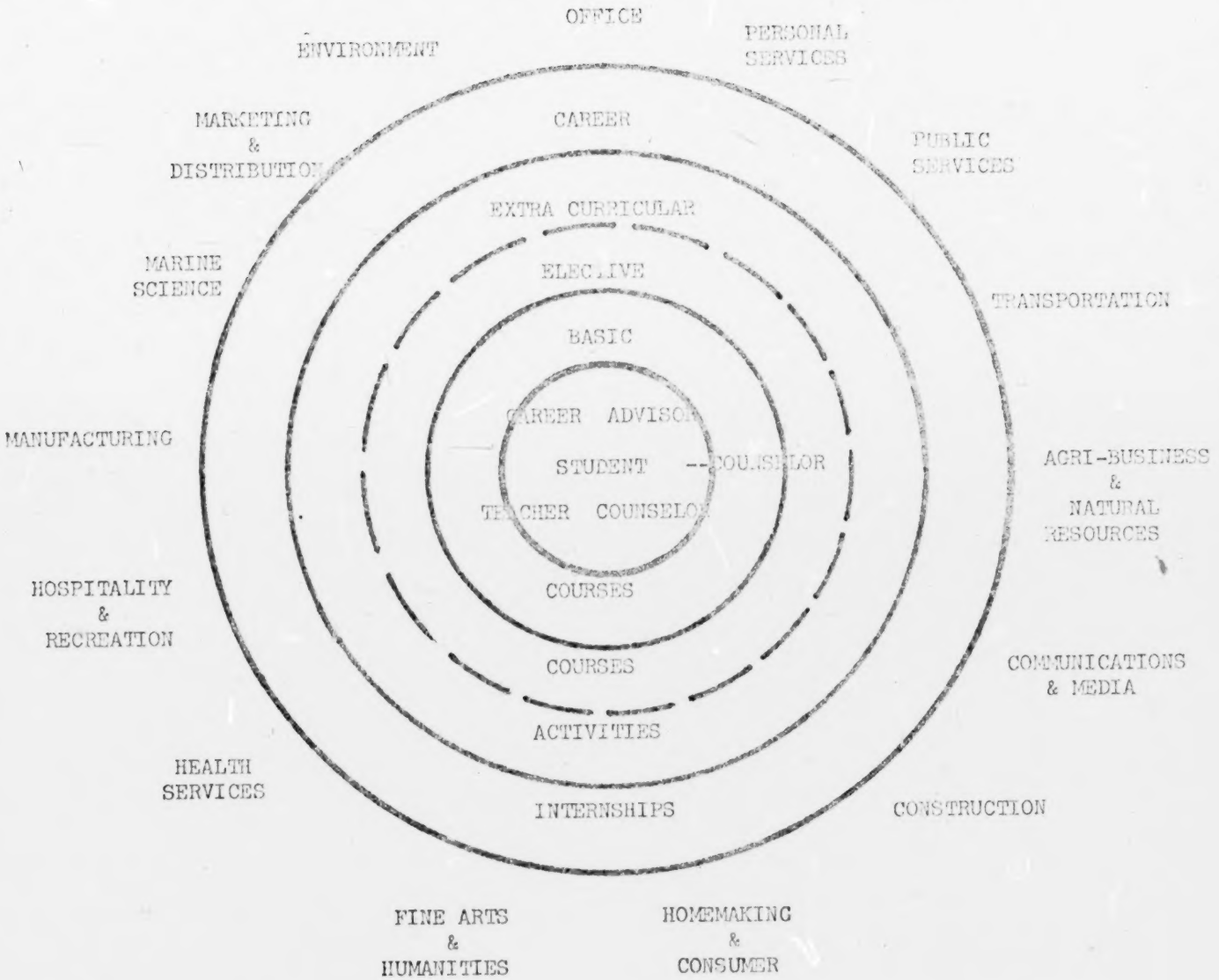
Each nine-week mini-course is, therefore, built around certain broad concept objectives. Specific behavioral objectives are written in order to support each major concept objective. In this way both English and science departments are able to insure that the basic concepts are taught regardless of the specific vehicle used.

As part of this program, it was decided that a nine-week marine science mini-course would be added to the science curriculum and an eighteen-week television arts mini-course would be added to the English department. (Appendices A and B) It was believed that both of these additions would improve students' understanding in two career areas where there seemed to be considerable student interest.

We are planning to continue the development of mini-courses in both of the above areas and to expand this effort to include other departments. It is felt that such a move would provide students with increased opportunities to explore more career fields and to develop course schedules in which the courses will be better articulated.

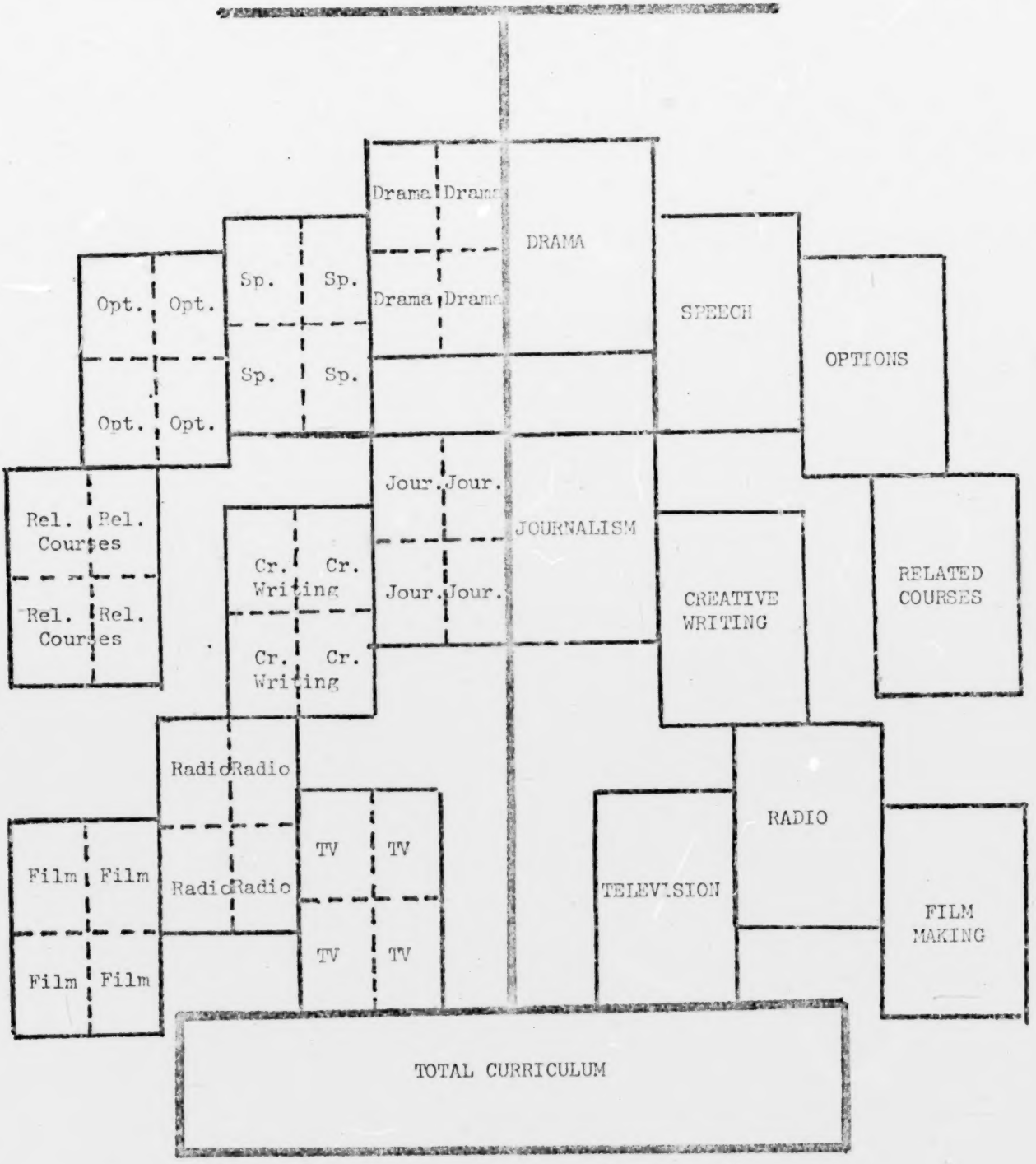
Coincidently, the Montgomery County School System moved during the second semester, 1973, to form staff committees in all disciplines and charged the members with the task of developing nine-week mini-courses for all subjects. Our next efforts, therefore, will be determined following the opportunity to analyze the results of the county's efforts.

CAREER EXPLORATION MODEL



SCHEMATIC 1

COMMUNICATIONS & MEDIA MINI-COURSE MODEL



SCHEMATIC 2

As stated in the introduction to this section, a fourth goal was to develop an internship program to provide interested students the opportunity to experience the milieu of a variety of career areas. Since this topic can best be discussed in relationship to the use of community resources, the reader is directed to Chapter III for a complete description of the career internships.

CHAPTER III

UTILIZATION OF COMMUNITY RESOURCES

Although identification of community resources is perceived by most people to be a very difficult and delicate task, the use of the proper techniques can make the process of identification both pleasuable and rewarding. The initial thrust in the development of community resources at Winston Churchill was in the area of specific resources. The term specific is used here as opposed to general, that is, specific being individuals and smaller businesses, while general refers to larger organizations and associations. The specific was the easier group of resources to work with initially and tended to lead to more general contacts.

In dealing with the specific area of resource development, the foundation for a resource bank began with friends, former teachers, colleagues, group requests, parents, and students. In beginning the program it was found that friends were frequently able to get the program into its initial functional stage. For example, the career education staff decided that a seminar on law would be a valuable career program. Immediately four lawyers who were friends or acquaintances of the career education staff came to mind. Once one of the lawyers agreed to participate, the program was well under way. Those lawyers who could not commit themselves to involvement knew colleagues who enjoyed working with students and who could make the necessary time

commitment. At this point the program was started.

Other valuable specific resources were former teachers and colleagues. The main advantage of these contacts was a pre-established rapport. The ability to meet with these individuals and discuss options in a free form environment ususally led to brainstorming and discovery of potential resources. As these resources were contacted and utilized, a sound foundation for the program was being constructed. Experience bore out that resource development does not always necessitate leaving the school. Professional associates possessed a wide variety of both experiences and acquaintances which they were anxiously willing to share with the program. Once staff members other than the actual career counselors became involved, they added support and enthusiasm to the program. Their interest and personalization strengthened development as well as school acceptance of the project. It seemed in the best interest of the program to include the talents of all available staff members. Thus former teachers and colleagues of advisors were a very valuable tool for foundation building.

The people who had the most to gain or lose from the program were also included in the development of the community resources. Parents and students had both the ability and the knowledge to add constructively to the program. We felt that the local talents of a community could not be fully tapped if the parents were shielded from the search for resources. In many instances a parent became a liason or an actual resource. Thus the actual participation of parents, as with colleagues, could only be viewed as beneficial. In this way the program became a total effort rather than an esoteric venture of some "glory seekers". For the same reasons students were also an asset not to be ignored. The idealism and

enthusiasm generated by students made them vital contributors. Consequently, parents and students were an important link in developing community resources.

Once the specific resources had been developed and utilized, the career education department found that the sturdy base from which it began had naturally drawn it towards general community contacts. Groups of businessmen, for example, heard about our career education program and contacted the office requesting student interns or time to speak with student groups. These business organizations eventually became a resource which sent representatives for seminars or requested additional student interns. General and specific requests from the community thus led to resources that benefited both the program and business groups.

An invaluable source of possible contacts was to be found in general telephone listings as well as in professional and business directories such as those provided by the Rotary, Kiwanis and Chamber of Commerce. These provided contacts to otherwise inaccessible resources. Another method of developing contacts was our participation in career days and forums sponsored by local universities, business institutes, social and professional organizations, school systems and civic associations. As the advisors tapped the community for resources, they also were advertising and spreading knowledge of the program throughout the community.

An undeniably rich source of material and knowledge was found in departments of the local, state and federal governments. Not only did these agencies provide speakers but also provided internships which served to acquaint students with a myriad of career possibilities and a realistic perception of the actual functioning of the government.

This benefited not only the students and the program but also the government officials who gained insight into youth and its activities.

During the phase of identifying the various community resources it was essential that a process of cataloging be devised by the career advisors at Winston Churchill High School which may be helpful to other programs in their infant stages. A five by eight index card was selected as the best method for filing community resources in a "Resource Bank". An illustration of this card can be found in Appendix C. The card was filled out in replicate and cross-referenced under the name of the organization, the individual's name, and a general business category. The community resource card form provided us with information for each community resource contact by place of employment, occupation, field(s) of interest, and organization providing additional resources.

Attached to each index card was a "contact record card" which also can be found in Appendix C. Each time communication occurred between the career advisor and the community resource person, the date, name of the person contacted, the name of the career counselor, and the nature of the contact were recorded. This was done so that duplication of the contact would not occur and proper rapport could be maintained. In dealing with the community resource personalities, one felt that it was advisable for a single counselor to build and continue to establish a relationship with a person rather than a variety of persons. The Community Resource Bank not only made it possible to store a vast amount of resource data but it also insured a smooth facilitation of the program. A composite of community resource personnel by field(s) of interest follows in Appendix D.

When contacts had been established, the advisors found it advisable to furnish the following kinds of information: the general school setting, the student body's background, the nature and goals of the career program, the school counselor's role, the career advisor's role, the community resource supervisor's role, and the legalities and formalities of the program.

Once the expansion of the program was completed, the career advisor could then begin to coordinate the use of the community contact with the school program. Field trip arrangements could be made, seminars set up, and the preparation for career internships began. During this time the career advisor had the opportunity to perceive whether or not a beneficial relationship was capable of developing. If so, the advisor could then integrate selected students into the program.

A very crucial role of the career advisor occurred before, during, and after contacts and discussion with various community resources. During this time students were interviewed, tested, and guided in relation to careers. They were made aware of the various available and potential contacts. Students were then selected and encouraged by the process described later in this report to attend specific seminars and field trips. Those students who had keen interest and met the designated criteria were encouraged to continue career exploration through the internship program.

Internship Program

The internship program specifically placed students at Winston Churchill High School as career interns with various resource people in the community. The designated criteria for the placement of those students was positive feedback from the school counselor, the student

interview, the parent, and school records. During this selection phase the career advisor had to use insight and perception to determine the proper placement of a student. The student also had to display a genuine interest and sense of responsibility. Each program had to be coordinated by one of the career advisors in conjunction with the student, the student's parents, guidance counselor, and a community resource person. The wide diversification of student interests and needs required that the placement of interns be on an individualized basis. The coordination of the program must include placement, scheduling, attendance, supervision and follow up.

The career advisor would confer with the student, discussing thoroughly the nature of the internship, expectations of the program, and the specific duties and responsibilities of the student. At these times it was important to clarify all possible questions the student had, such as, duration of the internship, absences, personality conflicts, transportation and other forseeable problems. The advisee and the counse or then met with the community resource person to make sure that a communications gap would not occur. Nothing can destroy a contact more quickly than an improper placement. Therefore all of the selection procedures had to be followed with awareness and precision.

Once all the preparations had been coordinated, the supervisory role of the career counselor began. Depending on the nature of the program, the appropriate supervisory techniques had to be utilized. It was important that the advisor agreed on a casual or formal supervisory role. In some case a phone call was sufficient; in others, numerous personal visitations were necessary. In any event, it was the advisor's role to maintain proper supervision, ironing out all problems and even removing

a student from a program on those rare occasions when necessary. Appendix E illustrates the breadth and scope of the internship placements during the past year.

Seminar Program

The seminar program has been an integral part of the overall career education program. It has been an invaluable source of realistic information about the actual skills and tasks required for a specific job as well as an opportunity for students to examine career alternatives. A second and equally important result has been the opportunity to acquaint students with related careers that students previously either had not been aware of or had not considered. Exposure to numerous related seminars begun in the early years of secondary education gives the student the background necessary for making intelligent decisions in regard to either an actual internship in his senior year or further formal academic training. Another advantage was that the professionals who spoke at seminar conferences were often in a position to recommend the mastery of skills which at first appeared to be unrelated but were actually a necessity in a specific field.

The actual implementation of our seminar program was guided by several considerations. Since the seminars were given by an expert or group of experts in the field, the availability of community resources was a primary consideration. The career advisor had to seek out available people and had to learn to look in less than obvious places for people possessing specific skills.

Student needs and interests dictated the type of seminars necessary in a given situation. Advisors determined these needs in conferences with students where students actually verbalized specific desires.

Sometimes the student's uncertainty gave the advisor hints of areas to investigate. In addition to this method the advisor made use of such instruments of measurment of career interests as the Priority Counseling Survey and the Self Directed Search. A third important source was the career advisor himself. After talking with several students, the advisor was often able to determine specific needs which affected certain segments of the school population. He then used this as a further basis for the implementation of seminars, for his judgment of the situation hopefully demonstrated an understanding of the students' needs.

Once the advisor had determined a need for a seminar in a specific area, he took one of several approaches. He may have selected a single representative to present a seminar or he may have used a panel approach. If the second was selected, the advisor chose participants who represented a profession, such as, a patent lawyer and criminal lawyer; two participants with different academic backgrounds or philosophies regarding their profession, in this instance, an American Civil Liberties Union lawyer and the State's Attorney. After careful selection of the participants, an essential part of the seminar was the period of time in which students actually had an opportunity to ask questions of the professional. This was always included since it was an invaluable opportunity for students to clarify many important points.

Another consideration in our seminar program was the level of sophistication to which the seminar was directed. Often the career advisor had to distinquish between students seeking knowledge on a basic and general plane and those on a more advanced level. For instance, if a seminar on nuclear physics were to be given, it is safe to assume that the topic for consideration would be meaningful only to a select group. Those participating students might be selected on the basis of

their involvement in a particular advanced course or by previously demonstrated excellence in the particular area. Selection of these students could be made by a cooperative effort on the part of the career advisor and the classroom teacher.

A further word about the actual selection of professional semi participants is necessary. As the career advisors became more experienced they were able to determine not only those individuals with sound knowledge of their specific field but also those equipped to deal with an adolescent audience. Often the success of the actual seminar depended on the professional's ability to give concrete information in an interesting manner. The career advisors could frequently insure success by reviewing with the professional specific questions to be answered and by making available audio-visual resources which allowed a variation in the pace of the delivery itself.

Once the seminar had been arranged the task of selecting students became one of utmost importance, for it was for them that the entire program exists. The career advisor was able to easily identify those students who in counseling sessions had shown a specific interest. Other interested students were identified by means of available test bank data, by means of all-school announcements and by poster advertisements to reinforce announcements. By these methods all potentially interested students were given the opportunity to be exposed to this information.

Since all students who were interested in a particular area might not be present at a seminar, seminars were taped and kept on file in the career education library. In this way the information was made available to all students, especially those whose career interests might

take a different direction in the course of their high school years.

The seminar program started late in the first semester and expanded rapidly during the second semester of 1973. Representatives of the student government association worked closely with the career advisors to identify student interests, to locate qualified speakers and to enlist the cooperation of the other staff members as sponsors of various seminars. A procedure was developed to permit interested students to pre-register in order to obtain a room sufficiently large to handle the anticipated audience. Since the audience regularly ranged from 50 to 200 students, it was usually necessary to reserve a section of the library for most seminars. Appendix F provides a summary of the seminar topics to permit the reader to assess the breadth and depth of the program.

Dissemination

A continuous effort was made to keep staff, students, parents and the general public aware of our progress. It was posited that such efforts would promote a higher positive response toward the program and thus facilitate the involvement of more people. We also believed that we had a responsibility to those directly involved as well as to the profession and the general public to share information regarding both our progress and our problems.

Our efforts naturally were most intensive at the local school level. The school newspaper ran numerous articles and news items related to the program and the PTSA newsletter provided program information on a frequent basis. Students were also informed by posters, public address announcements and hand-outs about seminar programs and services offered by the career education office. The annual school community report

carried a section on the project and several presentations were made at PTSA and citizen's association meetings.

The career advisors and the administrators also extended their involvement beyond the immediate school boundaries. Presentations were made at various county meetings of business and professional groups and members of these organizations were invited to the school to view the program first-hand. The county newspaper ran several articles describing the project and these in turn resulted in discussions with interested members of the community. A slide film presentation highlighting the program was prepared and presented at the League of Women Voters, at a Montgomery County Schools' consortium on special projects, at a career education program in Calvert County, Maryland, and at other community and civic organizations.

Public relations efforts were also extended to the state level. The principal was a presentor at the Maryland Career Education Workshop held at Hagerstown, Maryland, during the summer of 1972. He also hosted various teams of educators from other Maryland counties during the year in an effort to share ideas on career education. Members of the foreign language department also participated in several state career education workshops and described their department's participation in the project.

Program information was also brought before a national audience through publications and participation in meetings. The principal was a participant observer at the U.S. Office of Education's three-day National Invitational Workshop on Career Education for the Gifted and Talented held during the fall of 1972 at the University of Maryland. He was also an invited speaker at the American Vocational Association's

annual meeting held at Chicago, Illinois, in December 1972. As a result of this meeting, information regarding the program was presented in Career Education News and this in turn brought forth over 300 requests for our materials from all over the United States. The science career advisor had an article, "Advanced Biology as an Introduction to Science Careers", published in the May 1973 issue of The American Biology Teacher, and an article by the principal, "Creating an Environment for Career Education", was published in the Bulletin of the National Association of Secondary School Principals.

The staff has been appraised of the progress of the program on a continuous basis through presentations at general faculty meetings, department meetings and progress reports. In addition the career advisors have had frequent informal discussions with many staff members and have assisted other teachers to use the services of the career office as an adjunct to classroom instruction. The involvement of departmen members has been a major asset in moving the program forward. In addition to the involvement of individual teachers, many departments have proved invaluable assistance in the seminar and internship programs.

Although the efforts described above required considerable time and effort on the part of many people, we believe many benefits have already been derived. We therefore anticipate expanding the effort in both depth and scope to reach more people and to involve more students and staff in the program. A newly established closed circuit television studio at the school offers many exciting opportunities while at the same time permitting students the chance to explore career interests in advertising, acting, production and other media fields.

CHAPTER IV

EVALUATION

The evaluation of the Winston Churchill Career Cluster Curriculum Project was almost entirely based on subjective input and must therefore be interpreted cautiously by the reader. Although we realized the importance of obtaining statistically sound data we had to compromise our strategy for several reasons. First, the late funding of the project required that we devote a major portion of our time and efforts to the planning and implementation of the operational elements and left little time to be allocated to the development of statistical design. Second, the project was of such a nature that most of its objectives were in the affective domain or in the higher cognitive areas where evaluation instruments were either completely lacking or very difficult to construct. Finally, it was evident that a major thrust of an evaluation design should include procedures to measure student growth over a period of years and would necessitate the with-holding of career education services from a number of students during this period of time. Since we were indefinite regarding the duration of the project, we decided instead to make the services available to all interested students even though the decision immediately precluded the establishment of a control group in the design.

Intern Attitude Survey

An attitudinal questionnaire was given to all interns at the end of the year to obtain their perceptions of various facets of the program. The

students were asked to respond to a series of questions on a three point scale with responses ranging from highly helpful to not helpful. The following material will highlight certain response sets and attempt to interpret the data. A complete summary of the data can be found in Appendix G.

Student responses on the attitudinaire clarified several important points. First, the students undoubtedly viewed the internship as a valuable experience since 95% stated that they would recommend it to others as a positive experience and only 5% were not certain of recommending it to others. From 64 to 68% of the respondents indicated that the experience was helpful in making career decisions, clarifying future goals and relating to other careers, whereas from 12% to 18% of the respondents reported that the experience was not helpful in these respects.

The least positive response regarding the internship program was obtained from the question regarding the value of the internship in helping the student in the regular school program. In this case 49% of the students reported that the experience was not helpful, whereas only 22% found it to be helpful. We may infer several things from this response set; namely, that students were either responding based on their perceptions of a narrow range of transfer or that they really believed that the internship was something completely separate from all other learning activities.

Finally we discovered that teachers were the primary source of information about the career education program followed in descending order by advisors, students, counselors and parents. This finding is helpful in determining how we can better communicate with students

about the program and suggests that the staff in general was actively supporting the program.

Parent Attitudinaire

A parent attitudinaire was sent to the homes of a randomly selected sixty interns to assess how parents perceived the program as a result of discussions with their children. Forty-one of the attitudinaires were returned and although this was an unexpectedly small return we did feel that the data were of some value, and the highlights are given below.

The responses indicated that 60% of the parents believed that the internship program was highly helpful in assisting their children to explore careers and clarify future goals; whereas 10-20% of the parents did not perceive the experience to be of any help. Most parents, 60%, stated that the program was helpful in affecting the student's sense of personal responsibility for school achievement; and one parent did comment that the program kept his child from dropping out of school. These data may either indicate that the students failed to relate the internship responsibilities to other aspects of their educational program or that those students who take on internships are already responsible students who become involved in internships solely to broaden their academic experience. The complete summary of the parent attitudinaire can be found in Appendix G.

Employee Attitudinaire

"Employers" appeared to find the program to be very successful. They rated 78% of the students' performance as excellent, and 22% as good; and in no case did they give any student a negative performance rating. Employers (87%) indicated that the students with whom they worked gained knowledge which helped the student in selecting a career and that

the student should be encouraged to pursue the career field in which he had interned. Responses also indicated that 84% of the internship sponsors felt that the students had excellent interest in the career field of their internship, but the sponsors stated that 12% of the students demonstrated poor interest in the career area. The latter finding raises some interesting concerns which will require further consideration. The fact that 12% showed poor interest is not necessarily negative if these students are then counseled and helped to explore the reasons for their lack of interest and assisted to make alternative choices. Appendix G presents the complete data from the "employer" instrument.

Career Advisor Attitudinaire

Career advisors were also asked to evaluate the program and their responses are as follows. First, whereas all the advisors were in accord in rating the overall program as a success, the strengths and weaknesses as perceived by the advisor varied. The advisors were much more positive in perceiving the internship as a positive means of helping students to develop positive attitudes toward the school, than were students or parents, with 100% of the advisors rating the internship program as making an outstanding contribution in this respect. The advisors were also in total agreement regarding the receptivity of the student to the internship program with a 100% response giving it a rating of above average. The rating of various aspects of the internship program produced some variance of opinion, however, especially in the areas of supervision and evaluation of students. Although 25% of the advisors stated that the present methods of supervising and evaluating interns were outstanding, 75% of the advisors

stated that these procedures were only average. These findings resulted in several discussions regarding the topic and have already produced a decision to develop a set of guidelines which will produce more compatible approaches among counselors. Another conclusion which resulted from the above discussions was that there was a need for additional communications among advisors especially in light of an anticipated growth in the advisor staff. Plans are now underway to deal with this need during the next phase of the project.

Parents, counselors, students and employers were unanimous in their support of the internship program. While they agreed that some aspects needed strengthening these weaknesses were not seen to be insurmountable. A major thrust of next year's program will deal with strengthening the perceived weaknesses.

Seminar Evaluation

In an attempt to determine how successful a career seminar actually was, the career advisor had several possibilities open to him. Career advisors who had cooperated in setting up a particular seminar were able to meet in order to evaluate the success of the seminars. From their particular perspective they were able to analyze audience reaction and interest, advisor reaction, depth and frequency of questions asked, and the merits and/or deficiencies of the program.

It was important not to overlook the professional participant(s) in evaluating the seminars. Often, his perceptions mirrored those of the advisors but provided insights into the organization and running of the entire program as well. The overwhelming majority of our seminar participants indicated strong positive feelings in regard to seminars. Most, on their own accord, volunteered to return for future conferences

and proved to be valuable contacts for future resource references in either the seminar or the internship program itself. In addition, career speakers proved to be excellent leads to the expansion of the program by referring the advisors to other source contacts for further exploration.

Perhaps most valuable to the career advisor were individual conferences with students he was counseling. Here he was able to determine to what degree the student was affected and, more importantly, the reasons for his dissatisfaction. For the most part, the students stated that the seminars provided the participants with useful information about careers and were effective in suggesting additional considerations regarding the student's choice of a career. Furthermore, the students indicated that the speakers were generally very effective in presenting the topic to a high school audience and were very cooperative in answering questions raised by individual students.

The greatest concern expressed by students was that the large audiences sometimes prevented every student from having his individual questions answered. The students therefore recommended that more time be given to the seminar programs and that tighter limits be set on audience size. An additional recommendation was that the seminar series be expanded to include more careers and that the program commence earlier in the year.

In-Service Program

The career advisors were also asked to provide the administration with recommendations for the development of a career advisor in-service program. These recommendations were made at the end of the year and it was therefore felt that they were of great value since they reflected

needs as perceived by the participants in an on-going program.

The advisors recommended that the in-service program include topics, such as, identification and use of career inventories, test interpretation, decision-making strategy, group dynamics and identification of community resources. It was posited that each of the above topics could be best handled in a 2-3 hour program which would involve group participation with in-basket type activities. It was also suggested that such a program should be taught by a series of instructors, each of whom should be expert on a particular topic.

The advisors also recommended that they devote more time to communicating among themselves in order to share ideas and maintain a coordinated effort. As the program operated during the past year, each advisor had considerable autonomy in setting up his own operating procedures and, although this was viewed as a positive factor during the pilot phase, most advisors were now expressing the need to standardize routine operating procedures.

Finally, it was suggested that the advisors become more involved in in-service efforts designed to develop understanding and involvement on the part of the total faculty. In addition, it was felt that the advisors could become a valuable in-service asset to our feeder schools as they moved to become more involved in career education activities.

Plans are now being made to incorporate the above recommendations into the next phase of the project. It was hoped that such a program can further improve our program by providing all participants with the knowledge and skills required to operate effectively in a new and dynamic program. The very nature of such an effort requires, however, a degree of flexibility that precludes too much standardization.

The essential formula for a successful in-service program must therefore include staff participants who possess a caring attitude and a tolerance for ambiguity.

CHAPTER V

FINDINGS, FUTURE DIRECTIONS AND CONCLUSIONS

Findings

Chapter IV presented the results of several attempts to evaluate the project. As stated previously, almost all of the evaluation procedures were subjective; and the reader is therefore alerted to use caution in interpreting the findings of the project. However, subjective opinions of participants can be of value to others who may wish to consider similar activities and therefore a summary of our general findings follows:

1. Most senior high school students know very little about any one career choice and almost nothing about most careers.

2. Most students are interested in career information and will productively use opportunities to learn more about the topic.

3. Most senior high school students have little functional knowledge of their own academic and personal strengths and potentials.

4. Most senior high school students rely on idealistic conceptions of careers, family recommendations, or chance in selecting career goals.

5. Activities designed to develop self-awareness, career awareness, and decision-making skills need to be developed and incorporated into the educational program if each student is to be helped to set realistic goals for himself.

6. Activities as suggested in #5 need to be flexible enough to serve all students regardless of level of sophistication ranging from the student who is completely alienated from the educational process to those students who possess a definite set of career goals.

7. Curriculum must be perceived as the sum total of all experiences that a student may obtain under the supervision of the school if the school desires to assist the student to explore career interests and capitalize on many more educational opportunities.

8. Teachers can be used effectively as career advisors to assist students with the development of long-range planning and the identification and use of community internship experiences.

9. Business and professional members of the community will gladly give time to serve as speakers and sponsors of internships if they can be made aware of the school's program and can be assured that the program is properly planned and supervised.

10. It is difficult but essential to evaluate a broad program such as career education. Evaluation steps must be planned prior to the start of the program, and the evaluation strategy must be carefully designed to obtain maximum data while interferring as little as possible with the on-going program.

Future Directions

The findings of the previous section have provided us with both a reason to continue our career education efforts and a road map for moving into the future. These future directions for our program will be briefly described in the following paragraphs.

First, we are firmly committed to a continuation and expansion of our efforts to improve students' long-range planning skills and to increase

their opportunity to use internships as a means of obtaining first-hand experience in areas of career interest. We believe that the development of activities whereby in-coming tenth graders can participate in the self-awareness, career-awareness, and decision-making aspects of long-range educational planning requires major attention in the next phase of our project. Our small career education staff was so overloaded with many other facets of the program during the pilot program that the educational planning activities received insufficient attention in comparison to such activities as the internship program. Hopefully, such an imbalance will be redressed in this next phase of the program.

As part of the above process we are also aware of the need to give specialized attention to those students who are disenchanted or alienated with school as an institution. Although career education activities may eventually reach such students and assist them to again accept school as a helping institution, we feel that it is necessary to develop supplemental programs for such students to facilitate the development of individualized programs of study. Such a program is now being planned and will go into operation as of September, 1973.

Our career advisor program will hopefully be strengthened and expanded to include advisors from additional departments. The recommendations of the incumbent career advisors will be used to develop an in-service training program for career advisors. Since the program will be developed from the needs specified by participating advisors, it is anticipated that the program will raise the advisor's effectiveness in working in many aspects of the program. Supplemental funding will ultimately determine the number of advisors assigned to the program, but

we anticipate adding advisors from the foreign language and mathematics departments and possibly an advisor for the business education and one from the physical education departments. Ultimately we hope to have an advisor working out of each of the school departments.

A continued examination of our curriculum will probably result in the development of additional nine week mini-courses. It is likely that we will continue to develop additional offerings which will permit students to use their academic learning in more functional settings. We are already considering an extensive reorganization of various courses related to communications and media with the hope that the resulting product will increase a student's flexibility of choice.

We believe that our present format for developing mini-courses has been effective and can be used by our staff to develop additional learning packages. As described earlier, the first step is to have the staff clearly define the principles, concepts, generalizations and skills which should be included in the learning package. Following this activity, the staff can then develop an option's strategy which will permit the student to individualize his program without sacrificing the major objectives of the subject or discipline. Next, a decision must be made regarding the time frame required to accomplish the specified objectives and a judgment tendered as to the importance of sequence in the learning activity. Finally, the package is then given to an individual teacher or to a team of teachers who accept responsibility for developing the learning strategies and evaluation techniques related to the package.

We have found that the above approach provides a reasonable degree of flexibility for teachers and students while, at the same time, maintaining

a responsible posture with regard to accountability. Since the format itself is so simply stated it has proved useful in developing programs of varying duration and can thus be used across the board as the situation may warrant. As a next step in the process, we are hoping to refine our evaluation strategies significantly so as to be in a position to build test banks for the various disciplines. Such a process will, hopefully, permit us to move to a quarter credit grading procedure wherein accomplishment of objectives will become the basis for grading and promotion as contrasted with the traditional criteria of time spent in completing the most minimal amount of work.

We are also aware of the need to continue our dialogue about career education with the community and the public-at-large. We hope to increase our resource bank by developing a "master key" concept in our contact program. Since the development of the resource bank has been a slow, time-consuming process during this initial year, we hope to expedite the process by attempting to gain the support of more leaders in business and professional organizations who we hope will in turn help to obtain commitments from fellow workers in the field. Our efforts to contact the individual will likewise continue, however, and hopefully as word of our program spreads, more resource people will initiate contacts with us. We also intend to spend more time and effort assisting our feeder schools to develop career education programs of their own. In addition to our sense of professional responsibility, we also realize that such efforts must occur in order to help students to develop to their full potential. As such efforts are productive, the senior high school staff will be able

to turn more and more of their efforts to career planning, preparation, and exploration facets of the total program.

Finally, we intend to give more attention to the development of a statistical design which will permit us to generate data which will be useful for both short-term and long-term planning. Although we realize that such a program will require considerable thought and effort, we are convinced that these activities will serve many useful purposes.

Conclusions

The Winston Churchill High School Career Cluster Curriculum Project commenced on July 1, 1972 and concluded its pilot year on June 30, 1973. During the intervening year many hours of staff, student, parent, and resource personnel time was expended to develop a program which would assist the individual student to plan an educational program which would be goal-oriented, to have increased opportunities to select courses which would move him toward his personal goals, and to increase his opportunities to use the community resources as supplemental educational experiences. We believe the preceding pages of this report succinctly presents the record of our program and explains why we are encouraged to continue our efforts in this direction.

The reader is cautioned that such a program demands many prerequisites, not the least of which is a caring attitude on the part of the staff, which will sustain their efforts during many moments of uncertainty and frustration. Since such a program must focus on the needs, interests, and resources of a given school community, it would be unlikely that any two programs would ever be identical. However, as our experiences may

be helpful in stimulating others to think reflect and decide on what they may or may not want to do, we are pleased to have been given the opportunity by the U.S. Office of Education to present this report.

APPENDIX A

TELEVISION WORKSHOP I

This course is representative of one of several television production courses proposed for implementation at Winston Churchill High School. It is part of a sequence of courses in the communicative arts cluster that is designed to expose students to the field of communications and the varied career possibilities. With sufficient funding, Churchill could execute its communicative arts program in respect to three distinct areas: curriculum analysis, exposure to career opportunities through field experience and resource information, and coordinated internship programs. With the reponderance of mass media surrounding our students in our world today and their world tomorrow, secondary school education in the mass communications is essential. The media which needs to be analyzed by media students include the print media; the audio; the visual, such as film and photography; and television. Courses are designed for the consumer of these mass medias and for the future professional in the field of communicative arts. Our general objective for the program is the development of discriminating consumers and producers of both interpersonal and mass communications.

Purpose

Television Workshop I provides an opportunity for interested students to learn and experience all phases of television production. It emphasizes various techniques of television programming, the effective use of equipment, the basics of scriptwriting and directing in a variety of formats including news, commercials, variety shows, interviews, and small dramatic presentations. Lighting equipment use and maintenance, budget, and make up receive systematic attention. Stress will be placed on the legal and sociological effects of television programming and on critical assessment of current commercially produced programs. Exposure to the medium of television will provide the student with an opportunity to strengthen his communicative skills of writing, speaking, and listening. This course will also produce a core group of students to aid teachers and incoming students in various uses of the television studio. Emphasis on varied career possibilities in the field of television will be included.

Facilities

With its new auditorium and operational TV studio, Churchill can operate a modest TV program. The school presently owns two videotape cameras, one 1" VTR, one 1/2" VTR, one Sony video pack, and two monitors. In addition, a number of classrooms have been equipped with television drops for closed circuit broadcasting.

Teaching Strategy

It is the concept of Television Workshop I that the teacher should avoid excessive teacher-directed classes and permit the student to have many hours of hands-on experience with the studio equipment. The medium of television is generally a source of excitement for the student, and this kind of activity should be channeled rather than curtailed. Behavioral objectives should be carefully planned, and activities should be chosen on the basis of which would accomplish the objectives. The field of television communications is more alive and exciting than ever before. If taught this way, it should attract many students into the profession.

Methods of Approach

The comparative method demonstrates the relationship of television to the other communicative arts. This method reveals the strengths and weaknesses (biases) of the television medium as compared to other forms of mass communications.

The aesthetic method demonstrates the relationship of the material and formal elements of scriptwriting, direction, lighting, set design, and make up to the medium of TV.

The creative method demonstrates the actual production of individual programs which are written and directed by students.

The thematic method demonstrates the critical analysis of the content value of television programming. Stress will be placed on social aspects and implications of the media.

Teacher Objective

- To assist the student in developing an appreciation for television broadcasting as a communicative art
- To assist the student in developing criteria for discriminating consumption and production of television programming
- To introduce the student to the school facilities, equipment, and materials necessary for television production
- To assist the student in operation of the equipment necessary for television production experience
- To teach the student through the medium of television--more effective speaking, writing, listening, and visual skills
- To counsel the student towards a career in television production

Course Objectives

Upon completion of the Television Workshop I, most students should be able to:

- Explain the organization of a commercial and educational television station
- Describe the responsibilities of each of the major positions in a television station
- Recognize the interrelationships of departments and personnel in a commercial television station
- Describe the overall operation of a commercial and an educational television station
- Describe the use of equipment in both educational and commercial television stations
- Operate the school's television studio equipment
- Function in one or more positions in the school's television studio
- Demonstrate a knowledge of the basic elements of television scriptwriting
- Demonstrate some of the basic techniques of television production in direction, camera angle, lighting, set design, audio, etc.

- o Plan a budget for a school-based television programming
- o Demonstrate his knowledge of television production by writing and producing both a 5-minute and a 15-minute program
- o Formulate criteria for judging television programming
- o Evaluate and apply criteria for judgment on school produced projects
- o Evaluate commercially produced programs in terms of commonly used and personally defined criteria
- o Apply legal and ethical standards to their own television productions
- o Formulate some career aspirations on the basis of observation of professionals and from their own practical experience

Suggested Performance Tasks

In an outline form, the student will write out the organizational system of a commercial and educational television station. (75% accuracy, 3 days)

In written test situation, the student will explicate the roles of station manager, program director, chief engineer, announcers, traffic chief, promotions manager, librarians, production chief, news director, and music director, and floor manager. (85% accuracy, 1 class)

By constructing a flow-chart, the student will demonstrate the interrelationships of departments and personnel in commercial TV stations. (100% accuracy, 1 week)

By designing equipment layout for a broadcast station, using Panasonic catalog references for specifications and cost, the student will describe the use of such equipment. (minimum: tape recorder, mic, VTR, camera, monitor, headset, mixer, types of lights, roll drum)

Student must master the movement of the camera in:

1. following talent
2. panning
3. tilting

4. dollying
5. trucking
6. breaking away
7. zoom

in a 2-minute camera exercise. (100% accuracy)

Student will thread the Sony video back-pack in the correct position.

Student will design a gobo. (75% accuracy)

Student will design a mask. (75% accuracy)

Student will demonstrate how to thread a film projector. (100% accuracy)

Student will explain the use of a super orally (100% accuracy) and demonstrate a super (100% accuracy).

Student will define in a written test, the following terms relating to camera techniques: (75% accuracy)

1. depth of field
2. kinds of shots (close, medium, long)
3. kinds of angles (high, dutch, low)
4. cover shot
5. focus
6. knee shot

Student will perform the above camera techniques in a one-minuter presentation on video tape. (75% accuracy)

Student will research the rules of FCC broadcasting in

1. commercials
2. public service announcements
3. station identification

for a short paper and apply criteria for all his productions. (95% accuracy)

The student will define and explain the purpose of the transitional devices in television:

1. cut, take
2. fade-out
3. fade-in
4. dissolve
5. defocus
6. lap dissolve
7. wipe

in a written test and video tape presentation. (75% accuracy)

Student will prepare a program budget for his five and fifteen-minute presentations keeping each budget within the limits designated by the instructor. (100% accuracy)

Student will prepare a program log for both his five and fifteen-minute presentation. (100% accuracy)

Student will write a commercial (the same product) for

1. a 60-second commercial
2. a 30-second commercial
3. a 20-second commercial
4. a 10-second commercial

with simple language, avoiding long sentences, keeping characters alive with lines that are lively, using action words and onomatopoeia. (70% accuracy)

Student will demonstrate the use of sound to:

1. set scene
2. establish mood
3. achieve climax or emphasize it
4. transitional device
5. provide comic effects

in a short radio program (audio tape).

Student will write a public service announcement promoting school or community activity by using the following as criteria:

1. the simple word
2. concrete language
3. familiar language
4. simple sentence structure
5. avoid use of too many adjectives
6. ORGANIZATION SHOULD BE CLEAR, LOGICAL
7. use attention getting devices
8. timing of script to exact second . . . (100% accuracy)

and will present it orally to the class. (75% accuracy)

Student will write a news copy of some local or school event using same criteria as above but include slides, films, video tape, photographs and will present it to class on video tape. (75% accuracy)

Same for dramatic skit

Student will observe several television variety shows, specials, children's television and take personal note of special effects--class discussion and participation on the following week (affective).

Student will collect reviews of TV productions and list evaluations made by professional critics.

Student will list his own personal criteria for evaluation.

General Evaluation

I. Written tests are necessary for the first part of the course to insure basic knowledge of terms and appreciate the value of the field trips.

II. Student will be evaluated primarily on demonstrating his knowledge in:

a. the use of school equipment
b. the writing and producing of the five-minute program (informative)
c. the writing and producing of the fifteen-minute student choice program
d. his ability to operate in one or more of the school's studio operation

(Sample Unit)

Unit One: APPRECIATION OF TELEVISION AS A COMMUNICATIVE ART INTRODUCTION

I. Objectives

A. To introduce the background and history of television
B. To help students understand the significance of television's influence sociologically
C. To aid the student to critically analyze the media

II. Content

A. Background and history

1. Innovations
   a. Invention of scanning disc by Paul Nepkow (1884)
   b. The experimentations throughout the 1930's by Dumont, RCA, CBS
2. The TV freeze of 1948
   a. Signal interference
   b. Two-fold purpose
      1. To develop a frequency allocation plan
      2. To develop a policy for color TV
   c. Lack of variety in programming
   d. Loss of more than $48 million by stations
   e. Effects
      1. Change in the concept of media usage
      2. Increase in stations in 1952 provided for national coverage
      3. Increase in revenue which made TV more attractive to advertisers, talent, and consumer
3. Technical innovations in TV
   a. The Cathode ray tube
   b. Larger home viewing screens
   c. Magnetic video tape
   d. The vidicon tube
   e. The zoom lens
   f. Transitor
   g. Color broadcasting and receptions
   h. Mobile units
   i. New methods of transmission
      1. Co-axial cable
      2. Micro-wave
      3. Catv
4. Utilization of TV (present day)
   a. Educational TV
      1. Educational networks
      2. Commercial networks (white papers, etc.)
      3. Closed circuit within schools
   b. Instructional TV
   c. Uses of closed circuit
      1. Industry (surveillance, inspecting)
      2. Sports
      3. Medical demonstrations
5. Subscription TV
   a. Space exploration
   b. Instant replay (sports, drama, instructional, etc.)

APPENDIX B

MARINE SCIENCE CLUSTER

The science faculty at Winston Churchill High School has developed a program strategy with respect to a Marine Science cluster that has three distinct thrusts:

1. Curriculum Analysis and Modification (Instructional Systems)
2. Exposure to Career Opportunities by Utilizing
   a. field trips
   b. resource information book
3. Internship Program

Curriculum Analysis and Modification

One of the first problems encountered in this area was the definition of a reasonable exposure to the academic content of marine science.

In view of the fact that marine science draws on so many diverse disciplines the science faculty studied several different course outlines, as well as considering the possibility of developing our own outline. Finally, the Oceanographic Curriculum for High Schools was selected as a basis for a conceptual framework of what should ideally be available for students. This curriculum outline was developed by several staff members at the National Oceanographic Data Center in response to inquiries from secondary teachers throughout the nation. An analysis of what we were offering in many diverse courses was referenced against this suggested outline to guide our development of an instructional package which would supplement but not duplicate other efforts.

The marine science mini-course is one option available to students taking general biology. Most of the students taking biology are entering sophomores. For the last two years the science faculty has sought information from 10th grade biology students regarding their career goals and/or interests. We have also emphasized the role that various options in the biology program may play in career exploration. Thus, the enrollment in this popular mini-course has served as a basis for identifying students who are interested in marine biology while they still have time for further planning at the high school level.

As one would expect, there is heavy emphasis on fundamental biological concepts in the marine biology course. Furthermore, because of curriculum design and staff background most of the content in this mini-course emphasizes zoology. Thus, one consideration for the future is the development of a marine botany mini-course. Our analysis of the Oceanographic Curriculum for High Schools also illustrated the need for an opportunity for students to study marine chemistry. Since the chemistry program is moving in the direction of an options program also, this is currently being developed.

During the spring of 1974, one quarter of the general chemistry program will be open for students to select a mini-course of their choice. At this time a marine chemistry mini-course is being planned. In support of this effort the science department has recently purchased a 400ml variable speed centrifuge and a Bausch-Lomb spectronic 20, colorimeter-spectrophotometer. These instruments along with our radiation equipment and other resources will serve as a basis for laboratory exercises and independent field research. A similar type of mini-course as a part of the physics program is also a possibility in terms of dealing with surface waves, general hydrology, and currents.

The advanced biology program at Churchill has traditionally utilized a topical approach for organizing content. One area that has always received extensive consideration has been aquatic ecology, involving both fresh water and marine environments. The two extensive field trips taken each year provide a total of approximately 8 full days of field work in general marine science at Lewes, Delaware and/or Wallops Island, Virginia. Opportunities for independent projects are emphasized and the interdisciplinary nature of marine science is recognized by the demands of the activities. This course is therefore an integral part of the cluster of marine science.

Mini-course design to meet the needs of an expanded career education program is based on a functional set of instructional objectives. Thus, general institutional and/or program goals are not sacrificed in the process of appealing to current student interests. For example, in the event that a student who was interested in marine science in high school changes his career goal in college, he still has a basic science background to support other interests. The instructional objectives and the course outline for our marine biology unit follow.

MARINE BIOLOGY INSTRUCTIONAL OBJECTIVES

I. To recognize the relationship of physics to the science of marine biology

A. To relate the effects of pressure, temperature and volume to underwater environments

1. To correctly work problems using the gas law

$$\frac{P_1 V_1}{T_1} = \frac{P_2 V_2}{T_2}$$

2. To state the relationships between pressure, temperature and volume

3. To state the function of a scuba regulator

4. To define the following terms: atmospheric pressure, bar, decibar, fathom, and dyne

5. To state the depth of sea water equal to one atmospheric pressure

6. To convert atmospheric pressure into the following units: bars, psi, and dynes/cm^2

7. To convert various depths of sea water into the following units: psi, atmospheres, bars, dynes/cm^2

B. To determine the effects of water movements on living organisms

1. To define neap tide and spring tide

2. To state the cause of tides

3. To state the effect of tides on the temperature of marine waters

4. To state the effect of tides on the salinity of marine waters

5. To state the effect of tides on reproductive cycles of marine organisms

6. To state the effects of tides on migration of marine organizations

7. To determine the cause of currents

8. To define thermocline

II. To develop an understanding of invertebrate marine life

A. To recognize members of the phylum Mollusca

1. To identify members of the class pelecypoda

2. To identify members of the class cephalopoda

3. To identify members of the class gastropoda

4. To identify the shells of the following gastropods: tent olive, carrot cone, alphabet cone, deer cowrie, pink murex, black murex, keyhole limpet, auger, and cowrie

5. To correctly differentiate among the shells of the following gastropods: whelk, conch, cone, murex, olive, limpet, auger, and cowrie

6. To state the mode of nutrition used by pelecypods

7. To state the mode of nutrition used by gastropods

8. To state the economic importance of pelecypods found in the Chesapeake Bay

9. To identify the octopus as having the most developed brain of all invertebrates

B. To recognize members of the phylum Echinodermata

1. To identify asterias, the common starfish

2. To define water vascular system

3. To state the structures of the water vascular system

4. To identify the following structures: madreporite, stone canal, ring canal, radial canal, transverse canal, and tube feet

5. To organize, in correct order of occurrence, the above terms

6. To identify the following structures: spines, dermal branchiae, eyespots, mouth, ambulacral groove, and tube feet

7. To identify the following structures: stomach, pyloric caeca, gonads, and ambulacral ossicle

8. To state the kingdom and phylum of asterias

9. To identify acanthaster as the crown-of-thorns starfish

10. To determine the economic importance of echinoderms

11. To determine the mode of nutrition employed by starfish

12. To state the modes of reproduction used by the starfish

13. To determine the modes of reproduction of the sea urchin

C. To recognize members of the phylum Coelenterata

1. To identify physalia

2. To determine the mode of nutrition of the common jellyfish, aurelia

3. To state the function of a nematocyst

4. To determine the modes of reproduction in aurelia

5. To identify the following coelenterates: sea cucumber, hydra, sea anemone, and coral

D. To recognize members of the class crustacea

1. To identify the following: hermit crab, fiddler crab and blue crab

2. To differentiate between male and female blue crabs

3. To identify egg-carrying crabs

4. To state the economic and ecological importance of crustaceans

E. To discuss the phylum porifera

1. To identify members of the phylum porifera

2. To define the following terms: incurrent pore, excurrent pore, spicule, amebocyte and collar cell

3. To state the modes of reproduction employed by members of the phylum porifera

4. To state the mode of nutrition used by members of the phylum porifera

III. To develop an understanding of marine vertebrate life

A. To discuss the following classes of fishes: cyclostomata, chondrichthyes, and osteichthyes

1. To state the kingdom, phylum, subphylum and class of the following organisms: yellow perch, shark, skate, ray and lamprey

2. To identify the following external structures of the yellow perch: mandible, maxilla, anterior dorsal fin, posterior dorsal fin, caudal fin, anal fin, pectoral fins, pelvis fins, operculum and lateral line

3. To identify the following structures of the alimentary canal of the yellow perch: esophagus, stomach, phlorus, pyloric caeca, and intestine

4. To identify the following parts of the heart of the yellow perch: ventricle, atrium, sinus venosus, bulbous arteriosus, ventral aorta and cardinal vein

5. To identify the following parts of the brain of a yellow perch: olfactory nerves, olfactory lobes, optic lobes, cerebrum, cerebellum, medulla and spinal cord

6. To identify the pericardial cavity of the yellow perch

7. To identify the gill slits of members of the class chondrichthyes

8. To differentiate among the following organisms: shark, skate, ray, yellow perch, and lamprey

9. To state the feeding habit of the yellow perch

10. To determine the feeding habits of the lamprey

11. To determine the military importance of members of the class chondrichthyes

12. To determine the migratory habits of fishes

13. To determine the type of reproduction in members of the class chondrichthyes

14. To determine the type of reproduction in members of the class osteichthyes

15. To define the following terms: oviparous, viviparous, monoecious and dioecious

16. To determine the economic value of members of the class chondrichthyes

17. To determine the economic importance of members of the class osteichthyes

18. To determine the economic importance of members of the class cyclostomata

19. To determine the effect of pollution on the three classes of marine fishes

20. To determine the types of fish found in the Chesapeake Bay

21. To determine the types of fish found in the Atlantic Ocean

22. To determine the effects of temperature on marine fishes

IV. To develop an understanding of marine plant life

A. To evaluate the phyla of marine algae

1. To state examples of marine algae

2. To identify the more important types of algae found in marine waters

3. To define the following terms: plankton, zooplankton, and phytoplankton

4. To define the following terms: diatom, dinoflagellate, algae sargassum, and fucus

5. To compare the amount of photosynthesis by marine plants to that of land plants

6. To compare the amount of oxygen produced for man's use by marine plants to that of land plants

7. To state the economic importance of marine algae

8. To state the effects of pollution on marine algae

9. To compare the structures of marine algae to those of land plants

10. To determine the effects of salinity on marine algae.

V. To understand the chemical properties of sea water

A. To discuss the salinity of sea water

1. To determine the salinity of sea water

2. To determine the relationship between salinity and chlorinity

3. To determine the chlorinity of sea water

B. To discuss the pH of sea water

1. To define pH

2. To determine the pH of sea water

VI. To perform group research on a marine biological topic

A. To present information orally

1. To state the major themes of topic

2. To summarize report

3. To identify interests in other topics

B. To present topic in written form

1. To include bibliography

2. To be of adequate length to cover topic thoroughly

VII. To understand the ecology of marine waters

A. To study ecosystems

1. To define ecosystem

2. To define food chain

3. To define food web

4. To determine the results of an interruption in a food chain

5. To determine the results of an interruption in a food web

MARINE BIOLOGY COURSE OUTLINE

I. Introduction

A. Related fields
1. Chemistry
2. Physics
3. Geology

B. Importance of Marine Biology

II. Marine Environment

A. Pressure
1. Greater than that of terrestrial environments
2. 33 feet of sea water = 1 atm.
3. 1 bar 1 atm.
4.

$$\frac{P_1 V_1}{T_1} = \frac{P_2 V_2}{T_2}$$

5. Man must breathe air at ambient pressures
a. Calculation of pressures
b. Mechanics of scuba
c. Problems related to man's underwater exploration
1.) Emphysema
2.) Nitrogen narcosis
3.) Caissons disease
4.) "Martini effect"
5.) Saturation
6.) Breathing of mixed gases
7.) Heat conductivity of H_2O versis that of air

B. Tides
1. Diurnal tides
2. Semidiural tides
3. Mixed tides

C. Salinity
1. Definition
2. Laboratory determination
3. Effects on organisms

III. Marine Organisms

A. Algae
1. Basic forms
2. Types of reproduction
3. Importance
a. O_2 supply
b. Food
4. Phytoplankton

B. Zooplankton
1. Basic forms
2. Importance

C. Phylum Porifera
   1. Sponges
   2. Anatomy
   3. Economic importance
   4. Reproduction
D. Phylum Coelenterata
   1. Examples
      a. Jellyfish
      b. Portuguese man-of-war
      c. Coral
      d. Sea anemone
   2. Basic anatomy
   3. Forms of reproduction
E. Phylum Echinodermata
   1. Examples
      a. Starfish
      b. Sea urchin
      c. Sand dollar
   2. Basic anatomy
   3. Forms of reproduction
F. Phylum Mollusca
   1. Examples
      a. Oysters
      b. Scallops
      c. Clams
      d. Mussels
   2. Basic anatomy
   3. Forms of reproduction
   4. Economic importance
G. Phylum Arthropoda
   1. Examples
      a. Crabs
      b. Lobster
      c. Shrimp
   2. Basic anatomy
   3. Forms of reproduction
   4. Economic importance
H. Phylum Chordata
   1. Class Chondrichthyes
      a. Sharks, skates, rays
      b. Reproduction
      c. Behavior
   2. Class Osteichthyes
      a. Bony fish
      b. Reproduction
      c. Behavior
      d. Anatomy
      e. Economic importance

IV. Ecology

A. Trophic levels
B. Food chains
C. Biomass

V. Habitats

A. Shoreline
B. Intertidal
C. Benthic
D. Pelagic
E. Epipelagic
F. Benthopelagic
G. Abyssopelagic
H. Euphotic
I. Littoral
J. Sublittoral
K. Benthos
L. Abyssal
M. Subtidal
N. Swash zone
O. Necton

VI. Career Opportunities in Marine Biology

Teaching strategies and evaluation procedures have been developed for each of the instructional objectives listed on the preceding pages. Parsimony dictates an illustrative approach rather than a comprehensive effort of illustration due to the voluminous nature of the data. The material presented on the following page provides an example of the relationship developed among objectives, teaching strategies and evaluation.

EXAMPLES OF RELATIONSHIP BETWEEN TEACHING STRATEGIES AND EVALUATION

Example Selected from V- A- 1,2 and 3

Instructional Objective	Teaching Strategy	Evaluation
1. To determine the salinity of sea water	1. Lecture-discussion 2. Laboratory determination of salinity by using a method of choice	1. Students are given sample of sea water and determine the salinity $\pm$ 10 p.p.t.
2. (a) To determine the chlorinity of sea water	1. Students receive a handout regarding the standard methods for determining chlorinity	2. Students determine the chlorinity of a sample of sea water ($\pm$ 10 p.p.t.) and state the chemical reactions involved in the analytical process
2. (b) To determine the relationship between salinity and chlorinity	1. Laboratory demonstration and discussion 2. Reading assignment	3. Students are given a series of different samples of sea water. By using titration techniques students gather data and plot the chlorinity as a function of the salinity

APPENDIX C

COMMUNITY RESOURCE BANK FORMS

Resource Bank Information Card

WINSTON CHURCHILL HIGH SCHOOL

Resource Bank Information — Career Education Office

Mr.
Mrs. _____ Home Phone _____
Ms.

Address _____ Bus. Phone _____ Ext. ___

_____

Firm or Agency Name _____

Occupation (Please be specific) _____

Fields of Interest _____

Organization which may provide additional resources _____

COMMENTS:

Please return this card to the Main Office or to the Career Ed Office

Resource Bank Contact Card

Date	Name of Contact Phone No(s)	Nature of Contact Letter No	School Contact

APPENDIX D

COMMUNITY RESOURCE INVOLVEMENT BY FIELD OF INTEREST:
WINSTON CHURCHILL HIGH SCHOOL, CAREER EDUCATION PROGRAM, JUNE 1973

FIELD OF INTEREST	NUMBER OF RESOURCES
AGRICULTURE	2
ART & ARCHITECTURE	10
BUSINESS	31
COMMUNICATIONS & MEDIA	24
COMPUTER SCIENCE	10
CONSTRUCTION	2
COUNSELING	11
ECOLOGY	15
ECONOMICS	7
EDUCATION	22
FOREIGN AFFAIRS	12
GEOGRAPHY	1
GOVERNMENT	12
HISTORY	3
HOME ARTS	9
HOTEL & RESTAURANT MANAGEMENT	2
LANGUAGES	7
LAW & LAW ENFORCEMENT	17
MATHEMATICS	3
MANUFACTURING	2
MILITARY	6
PERFORMING ARTS(MUSIC, DRAMA, DANCE)	10
POLITICAL SCIENCE	4
PSYCHOLOGY	8
PUBLIC SERVICE	4
RECREATION	10
RELIGION	1
SCIENCE-ENGINEERING, PHYSICS,CHEM	14
SCIENCE-MEDICAL & HEALTH	40
SOCIAL & COMMUNITY SERVICES	12
TRANSPORTATION	8
VOCATIONAL EDUCATION	2
TOTAL, COMMUNITY RESOURCES	321

APPENDIX E

STUDENT INTERN PLACEMENTS BY AREA OF INTEREST AND GRADE
WINSTON CHURCHILL HIGH SCHOOL, SEPTEMBER 1972 THRU JUNE 1973

AREA OF INTEREST	ALL GRADES	10TH GRADE	11TH GRADE	12TH GRADE
TOTAL, STUDENT PLACEMENTS	210	20	56	134
SOCIAL STUDIES	83	3	23	57
OUTDOOR EDUCATION	43	2	17	24
LAW & GOVERNMENT	13	1	2	10
SOCIAL SERVICES	27	-	4	23
SCIENCE (BIOLOGY)	20	-	-	20
ENGLISH (COMMUNICATIONS & MEDIA)	10	-	1	9
OTHER 1/	9	2	1	6
CHILD DEVELOPMENT	20	-	-	20
MUSIC	40	15	15	10
DISTRIBUTIVE EDUCATION	28	-	16	12

1/ Includes computers and electronics, restaurant and store work

- None

APPENDIX F

CAREER SEMINARS

DATE	CAREER AREA	SPEAKER(S)
12/14/72	AVIATION	A pilot and airline stewardess from United Airlines
1/4/73	*BROADCASTING	CBS News Correspondent
1/9	COMMUNITY SERVICE WORK	Youth Activities Director for the Montgomery County American Red Cross
1/19	JOURNALISM	Editor and writer of newsletter for Montgomery County Department of Community and Economic Development
1/24	*LAW ENFORCEMENT	D.C. Metropolitan Police Department
2/8	*LAW	S ate's Attorney on criminal law; two lawyers from International Tabulating Institute and Mudge, Rose, Guthrie and Alexander on corporate law; a lawyer in private practice; two law students from American University
2/12	ELECTRONICS	Electronics Technician
2/20	*FOREIGN LANGUAGES	Professor from Georgetown University School of Foreign Languages
3/6	NUCLEAR ENGINEERING	Engineer, Atomic Energy Commission
3/12	*MEDICINE	Immunologist with Microbiological Associates

*On tape in Career Education Office

APPENDIX F

CAREER SEMINARS (cont'd)

DATE	CAREER AREA	SPEAKER(S)
3/14	*PSYCHOLOGY	WCHS school psychologist and Supervisor of Psychological Services of Montgomery County Public Schools on school psychology; a clinical psychologist; a psychotherapist in private practice; a mental health counselor and psychiatric social worker
3/21	SPECIAL EDUCATION	Montgomery County Association for Retarded Citizens
4/6	ARMED SERVICES	Male and female representatives from Army, Navy and Air Force
5/2	*SUMMER PLACEMENT	Personnel Specialist from local personnel agency
	ECOLOGY	Representatives from National Park Service, US Department of Interior on conservation and forestry
5/22	*MATHEMATICS	Professor of Mathematics at American University; a statistician from the U.S. Department of Health, Education and Welfare; a systems analyst from U.S. Bureau of Customs
5/30	MEDICINE	Two medical students discuss medical education, a senior pre-medical student from University of Maryland and a first year medical student from George Washington University
	CAREER INTERNSHIP	WCHS student interns discuss career internship program

*On tape in Career Education Office

APPENDIX G

PERCENTAGE DISTRIBUTION OF RESPONSES ON EVALUATION INSTRUMENTS

QUESTION	PERCENTAGE OF RESPONSES		
	Helpful	Somewhat Helpful	Not Helpful
PARENT EVALUATION FORM			
1. To what extent did the program help further your child's interest in career identification?	60	20	20
2. To what extent did it clarify future career goals?	60	30	10
3. To what extent did it help your son/daughter accept more personal responsibility for his/her learning activities?	60	27	13
4. To what extent did your son's/daughter's internship experience have any positive effect on his/her school achievement this school year?	33	23	44
STUDENT EVALUATION FORM			
1. Based on your perceptions, to what extent did the internship help you make decisions concerning your career?	68	20	12
2. To what extent did the experience help you to clarify future career goals?	68	18	14
3. To what extent did the internship help you in your regular school program or your school courses?	22	29	49
4. To what extent have you found your career experiences helpful in relating to other careers?	64	18	18

APPENDIX G

PERCENTAGE DISTRIBUTION OF RESPONSES ON EVALUATION INSTRUMENTS (cont'd)

QUESTION	PERCENTAGE OF RESPONSES		
STUDENT EVALUATION FORM (cont'd)			
5. Having participated in the program would you recommend it to others as a positive experience?	Yes 95	No 0	Not Sure 5
6. How were you first advised of the career education program?	Teacher 36	Career Advisor 31	Student 23
	Counselor 5	Parent 3	Administrator 2
CAREER ADVISOR EVALUATION FORM	Outstanding	Above Average	Average
5. To what extent did the internship help the student to develop a more positive attitude toward school?	100	0	0
7. How receptive were students to career internships?	100	0	0
8. How would you categorize the student intern program in regard to:			
a. Identification of Students	0	100	0
b. Placement of Students	25	75	0
c. Supervision of Students	25	0	75
d. Evaluation of Students	25	0	75
EMPLOYER EVALUATION FORM	Excellent	Good	Poor
1-3 Student Performance	78	22	0
6-7 Student Interest	84	4	12
4. Do you think the student gained knowledge which will help him in selecting a career?	Yes 87	No 13	Not Sure 0
5. Do you think the student should be encouraged to pursue this field of study?			